

Taking Action – Understanding Health Inequities

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Deputy Director

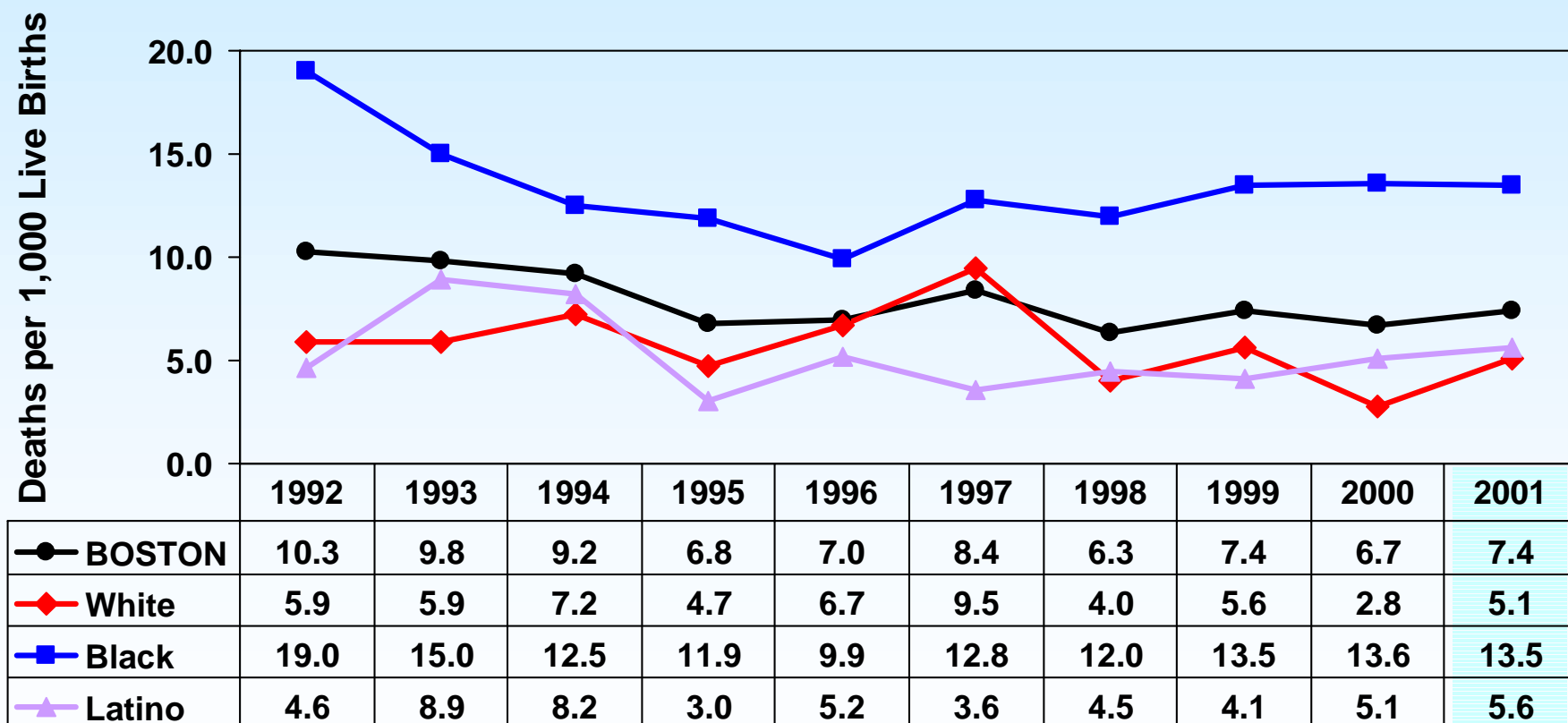
Boston Public Health Commission

Racial Disparities in Boston

Health Indicator	Black	White
Asthma (< 5, hosp)	11.4 per 1000	3.4
Birth Weight (Less than 3.3lbs)	3.0% of births	1.6%
Body Weight (Overweight or Obese)	68%	41%
Breast Cancer (Mortality)	29.7 per 100,000	25.9
Cervical Cancer (Mortality)	5.6 per 100,000	2.3
Death Rate (Mortality)	1116.8 per 100,000	919.6
Diabetes (Mortality)	41.8 per 100,000	16.6
Drug Related Mortality	15.7 per 100,000	19
Heart Disease (Mortality)	239.6 per 100,000	238.1
High Blood Pressure	30.4%	17.2%
HIV / AIDS (Mortality)	28.1 per 100,000	6.8
Homicide	27.2 per 100,000	2.2
Hospitalization	163.8 per 1000	108.9
Infant Mortality (Mortality)	12.4 per 1000	4.6
Lung Cancer (Mortality)	61.6 per 100,000	66.2
Prostate Cancer (Mortality)	68.3 per 100,000	31.2
Smoking during pregnancy	6.3%	5.1%
Suicide (Mortality)	3.6	6.2
Teen Birth Rate (15 - 17)	14.1 per 1,000	6
Uninsured	9.2%	6.5%

BIRTH OUTCOMES

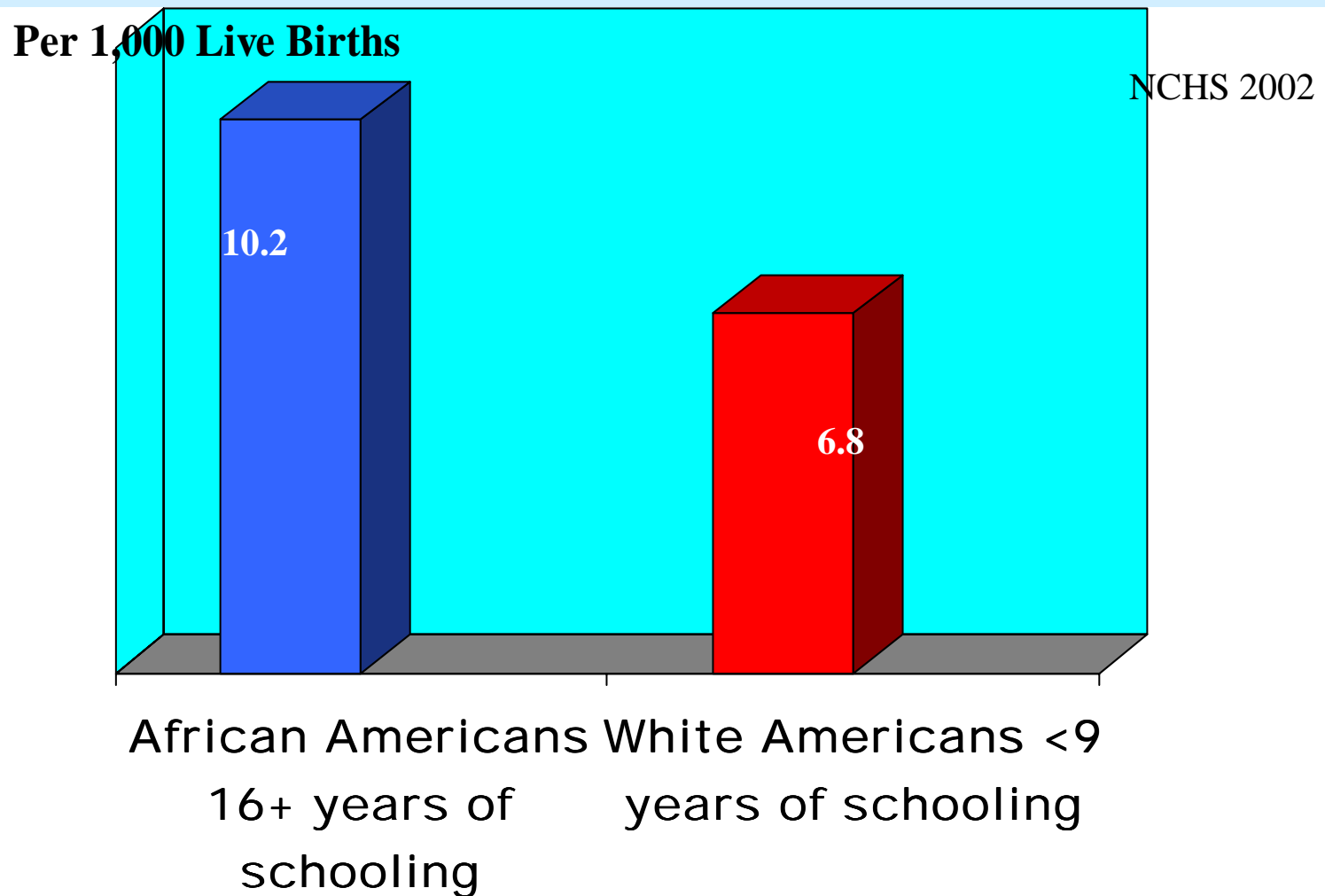
Infant Mortality Rate By Race/Ethnicity Boston, 1992-2001



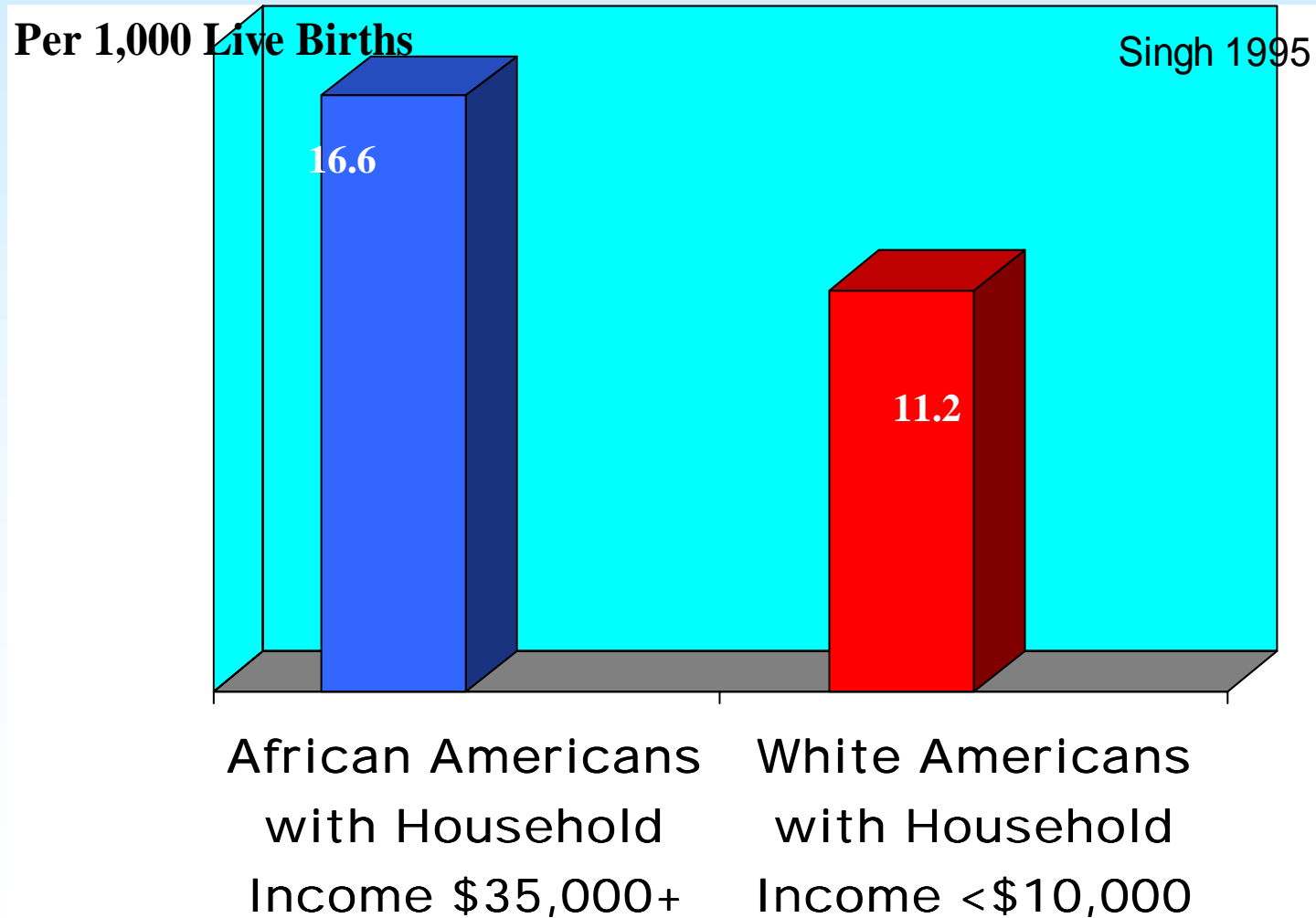
SOURCE: Boston resident live births and infant deaths, Massachusetts Department of Public Health
ANALYSIS: Boston Public Health Commission Research Office

IS IT ABOUT
EDUCATION OR
INCOME?

Racial & Ethnic Disparities Infant Mortality & Education



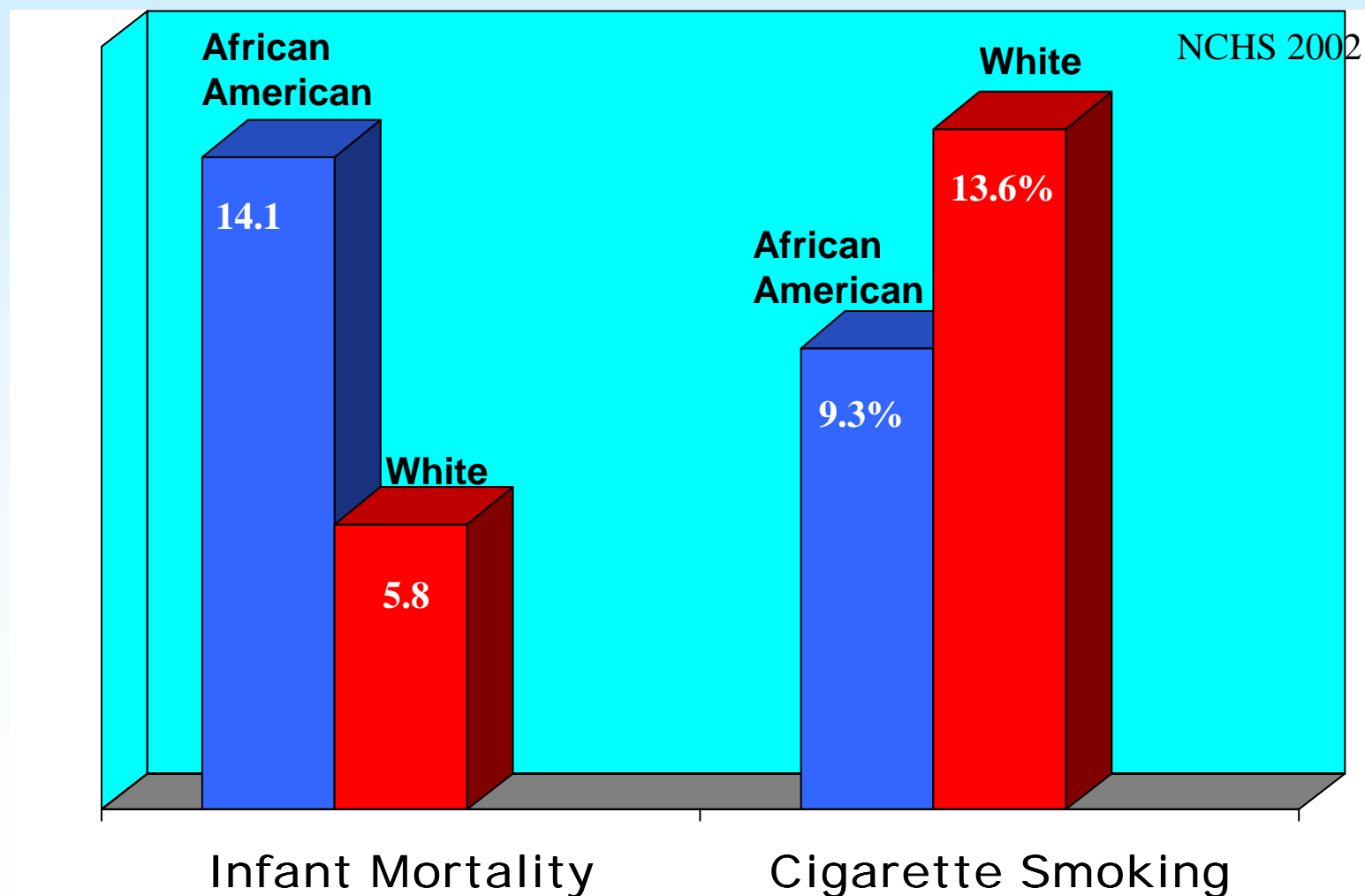
Racial & Ethnic Disparities Infant Mortality & Household Income



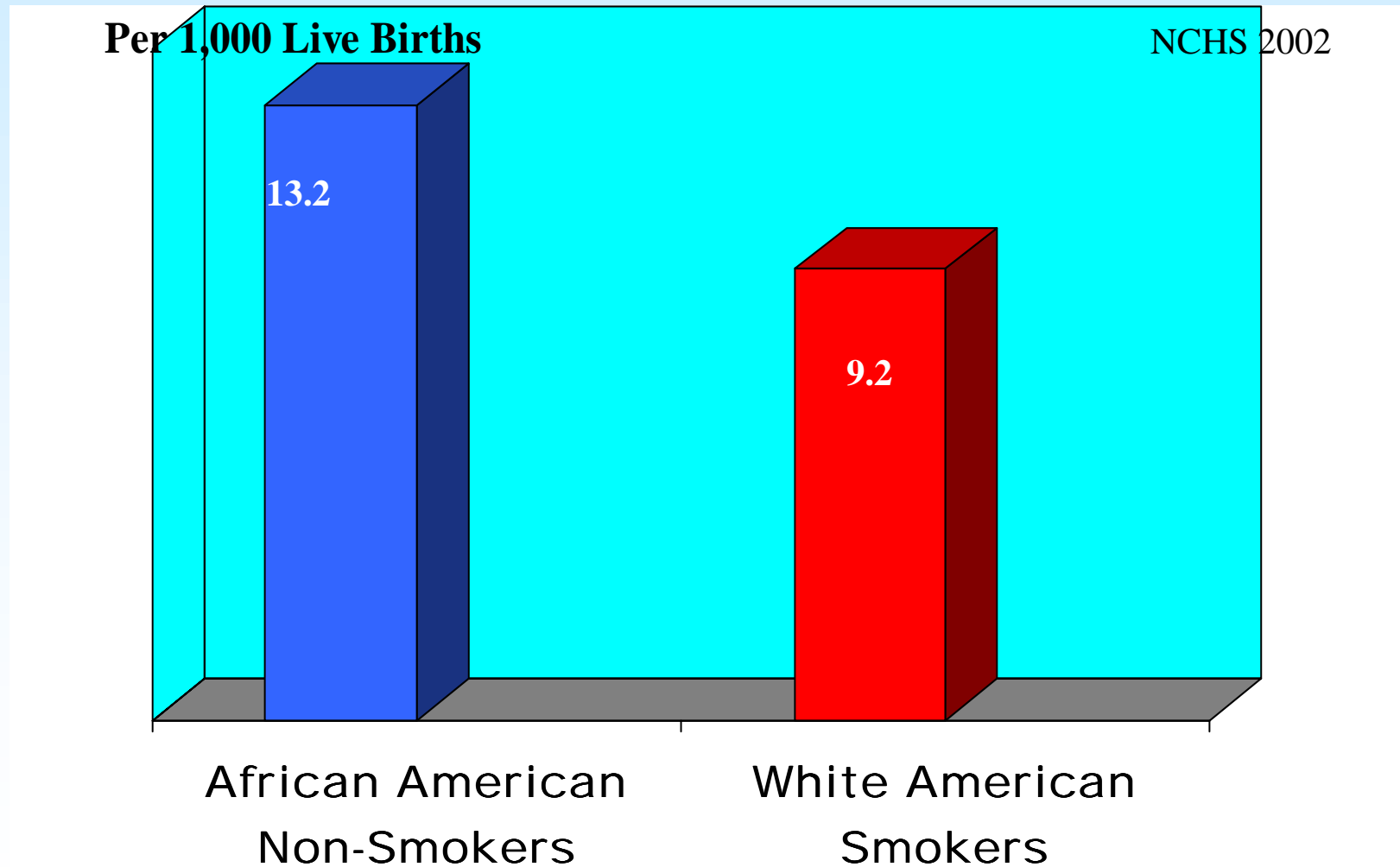
IS IT ABOUT HEALTH
BEHAVIOR

Racial & Ethnic Disparities

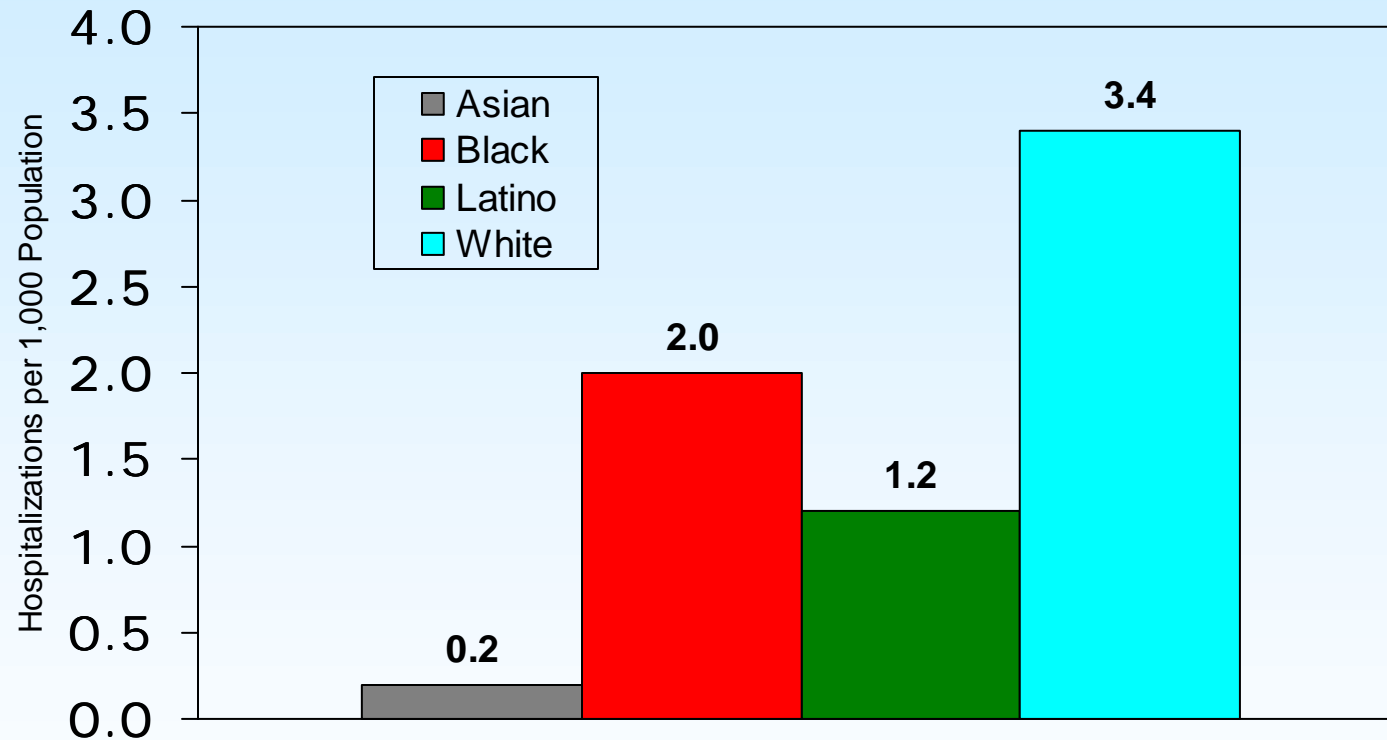
Infant Mortality & Cigarette Smoking



Racial & Ethnic Disparities Infant Mortality & Cigarette Smoking



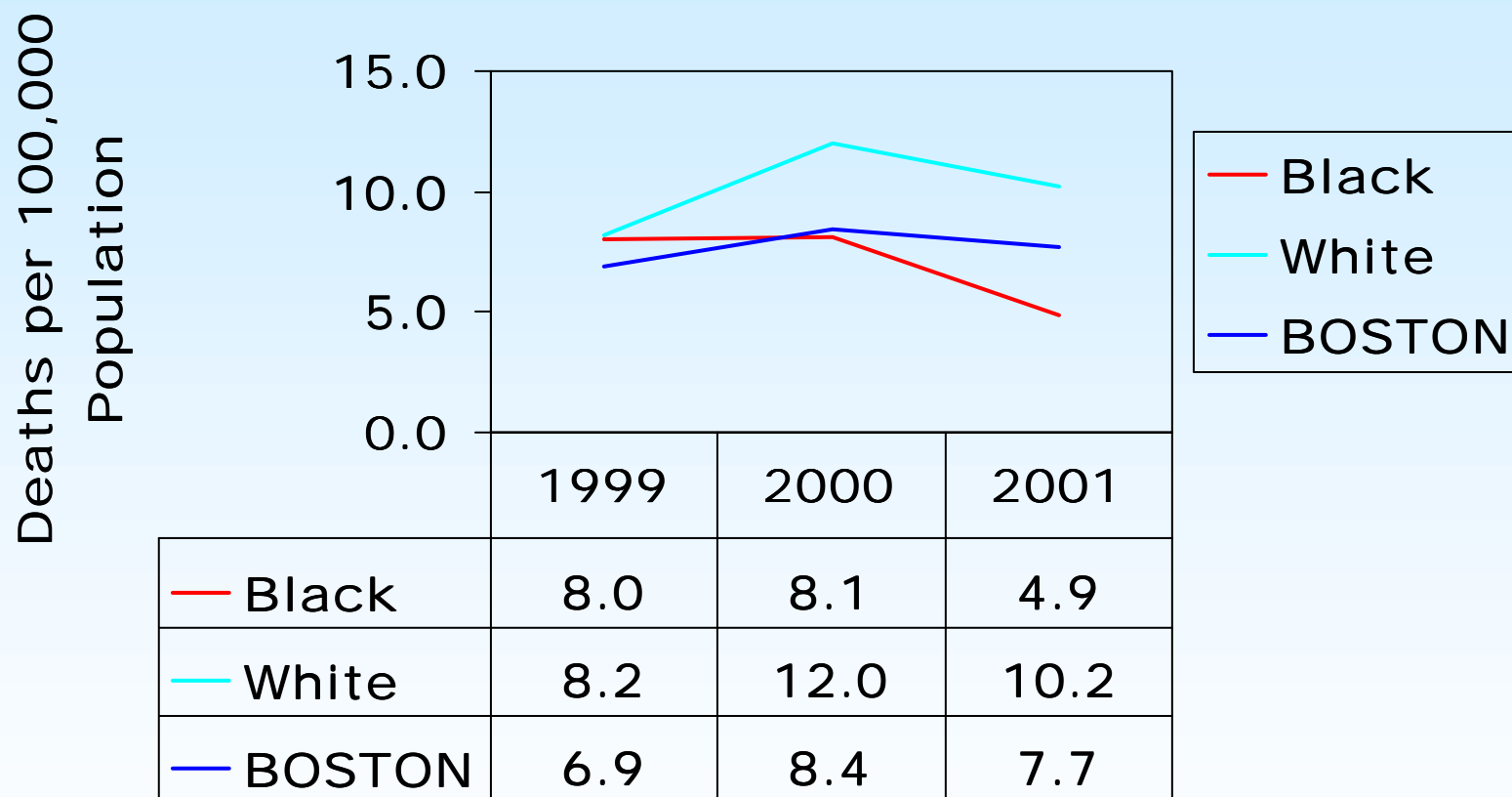
Substance Abuse Hospitalization Age-Adjusted Rates By Race/Ethnicity, Boston, 1999-2001



DATA SOURCE: 2001 Acute Case Mix, Massachusetts Division of Health Care Finance and Policy. Rates are calculated using the US Census 2000 for resident population.

DATA ANALYSIS: Boston Public Health Commission Research Office

Alcohol-Related Mortality: Age-Adjusted Rates By Race/Ethnicity by Year, Boston, 1999-2001

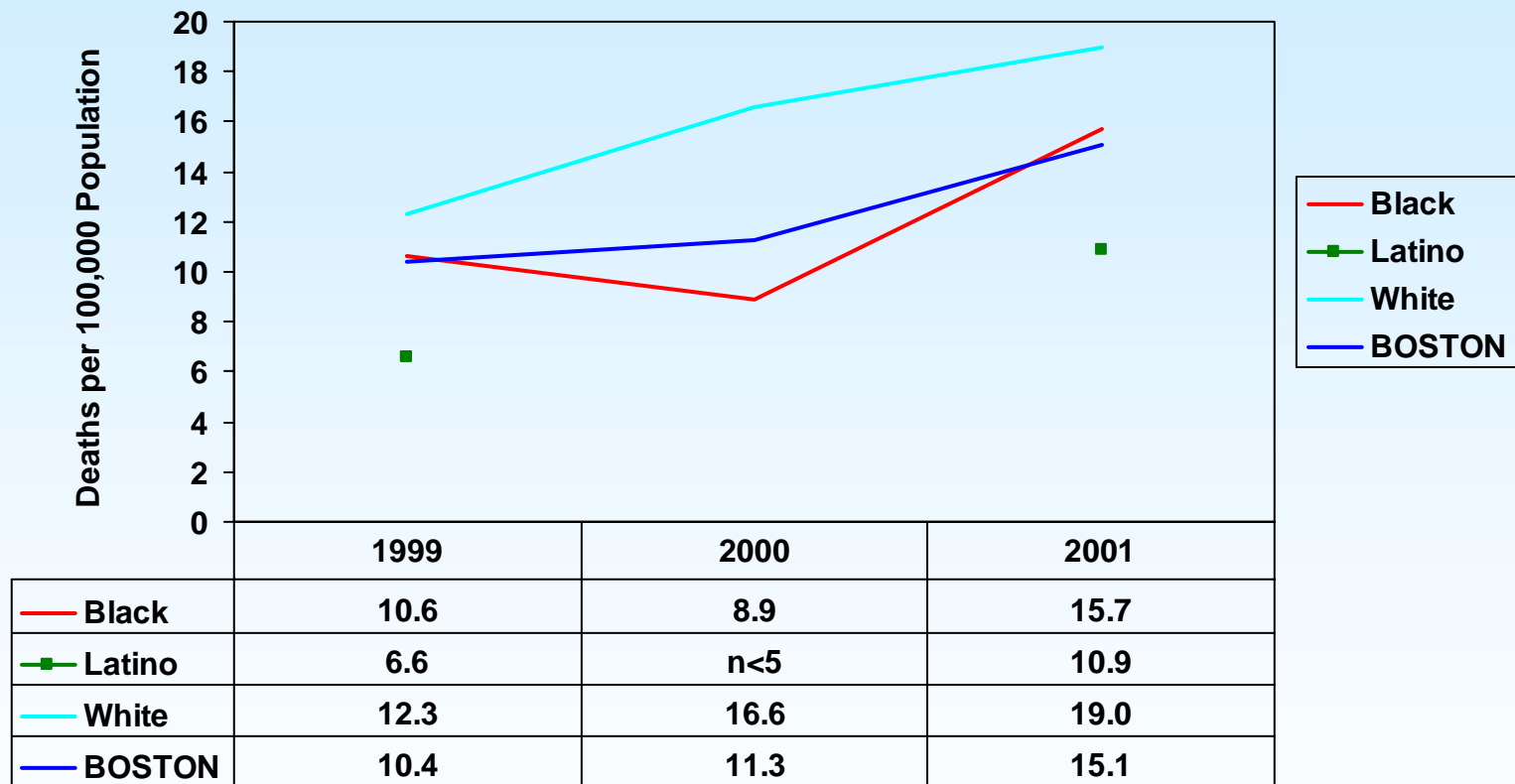


NOTE: Too few deaths related to alcohol occurred among Asian and Latino Boston residents to permit rate calculations for these groups.

DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health. Rates are calculated using resident population from the US Census 2000.

DATA ANALYSIS: Boston Public Health Commission Research Office

Drug-Related Mortality: Age-Adjusted Rates By Race/Ethnicity by Year, Boston, 1999-2001



NOTE: Too few deaths related to drugs occurred among Asian Boston residents to permit rate calculations for this group.

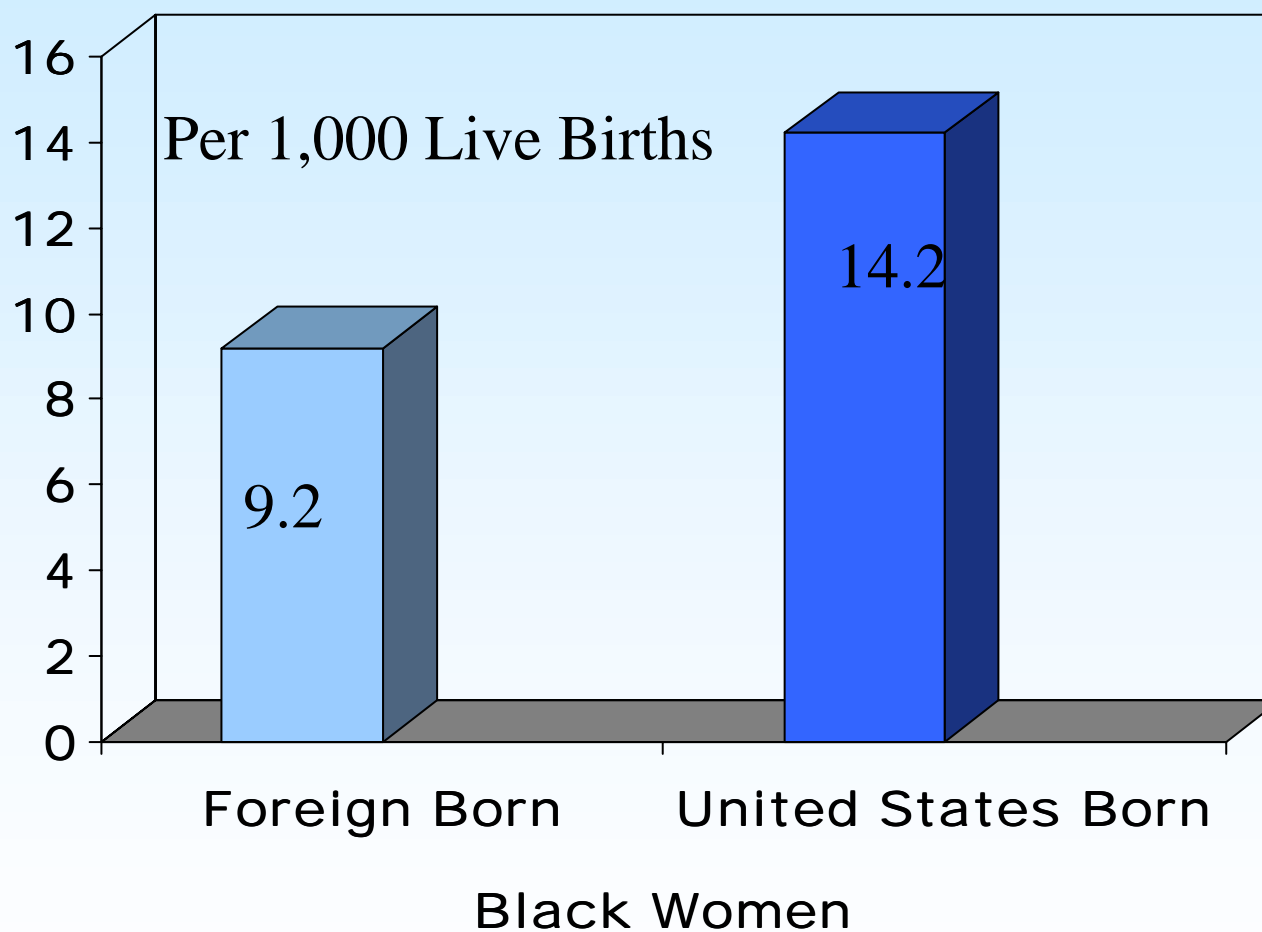
DATA SOURCE: Boston resident deaths, Massachusetts Department of Public Health. Rates are calculated using resident population from the US Census 2000.

DATA ANALYSIS: Boston Public Health Commission Research Office

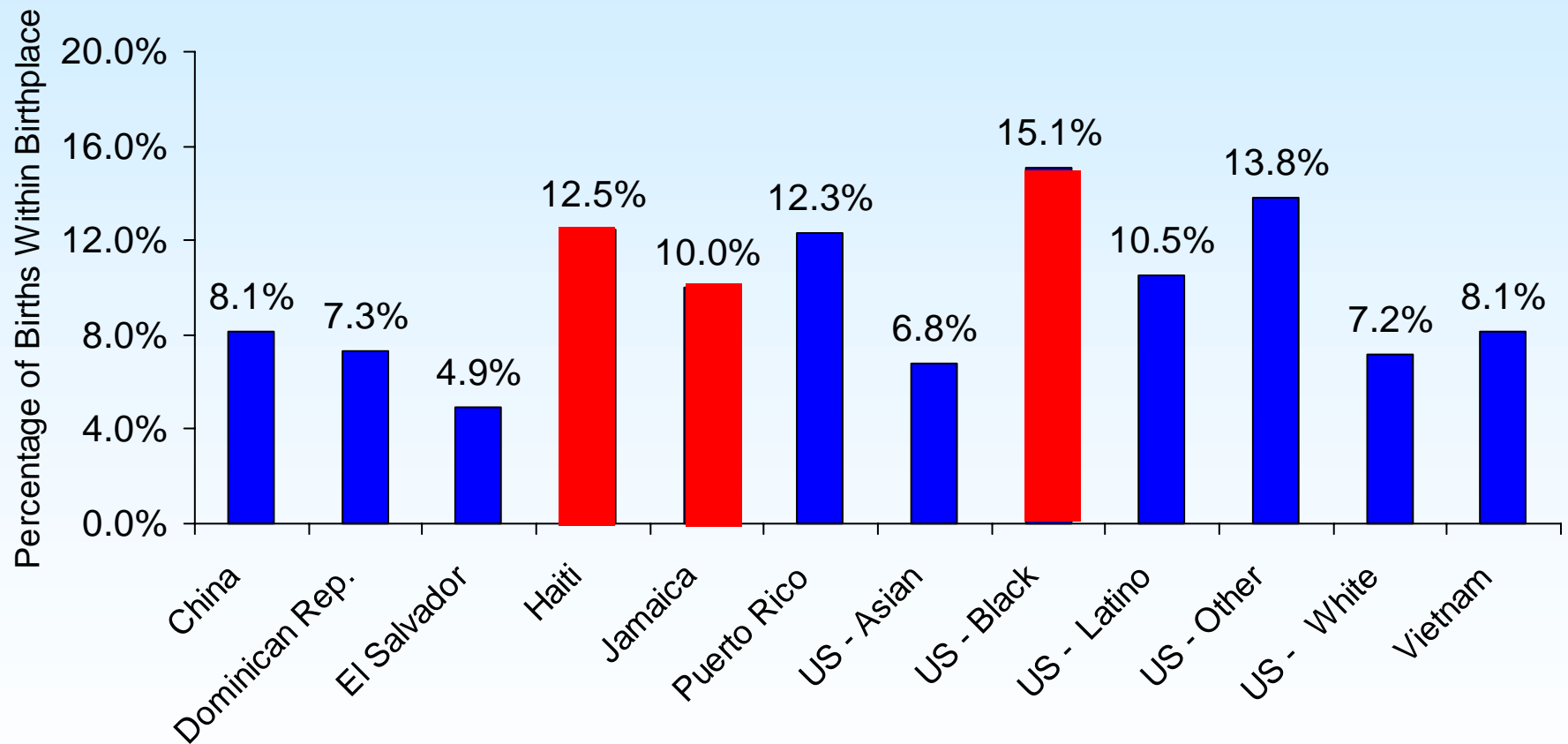
Is It About Race?

- **Race has no clear biologic or genetic basis... "there are no characteristics, no traits, not even one gene that turns up in all members of one so-called race, yet is absent from others" (L. Adelman. *Race and Gene Studies*)**
- **The meanings of racial designations- White, Black, Asian- are subject to historical, cultural and political forces; "race justified social inequalities as natural".**

Racial & Ethnic Disparities Infant Mortality & Nativity



Low Birthweight by Maternal Birthplace, Boston, 2002



SOURCE: Boston resident live births, Massachusetts Department of Public Health
ANALYSIS: Boston Public Health Commission Research Office

WHAT ABOUT RACISM ?



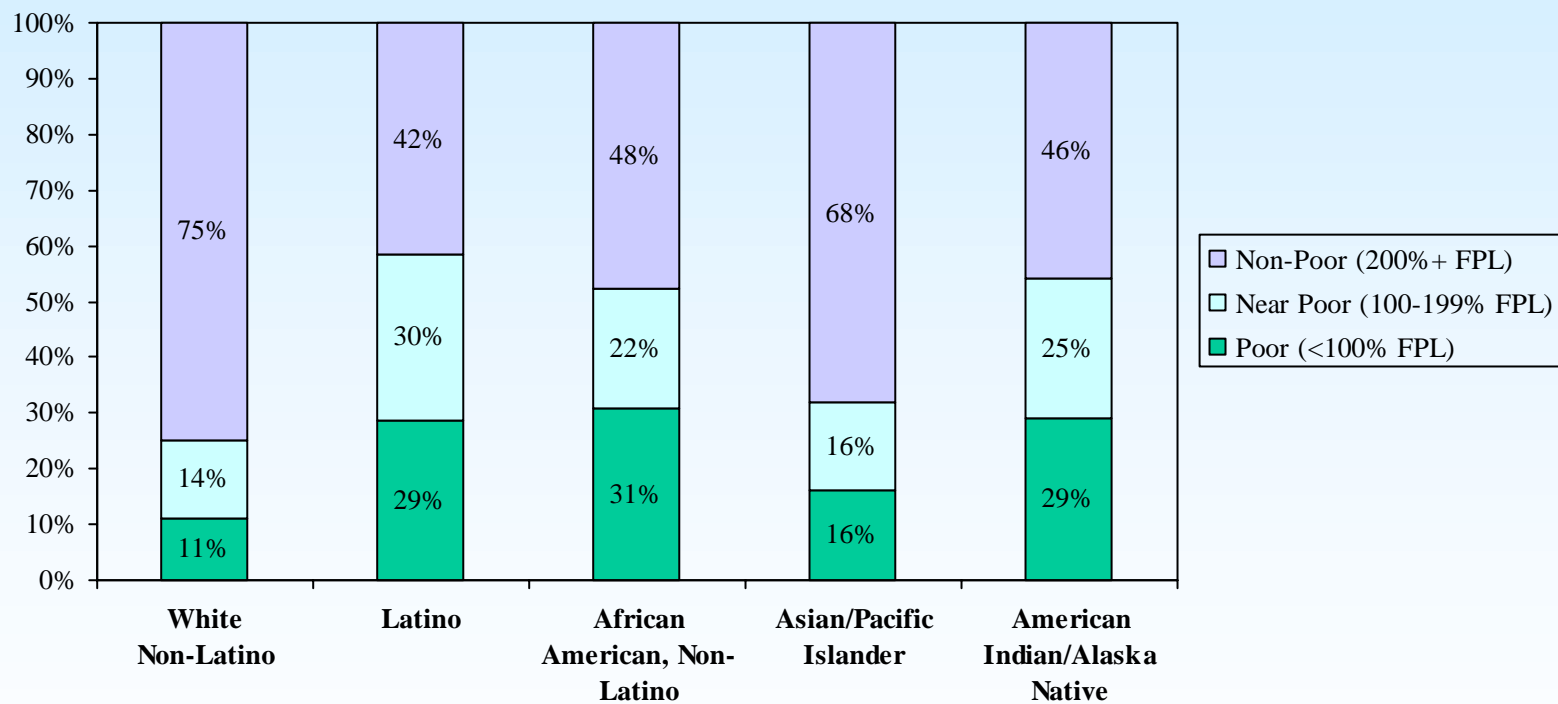
How Can Racism Affect Health Status?

- **Differences in socio-economic status and environmental conditions**
- **Differences in exposure to “stress”**
- **Differences in access to health care services**
- **Differences in diagnostic testing, treatment, and the quality of care received within the health care system**
- **Differences in health behaviors**

Socio-Economic Conditions

- **Legacy of slavery, segregation and discrimination created social and economic inequities**
- **Institutional structures and social relations can serve to maintain these disparities**

Poverty Status of the Nonelderly Population by Race/Ethnicity, 2001

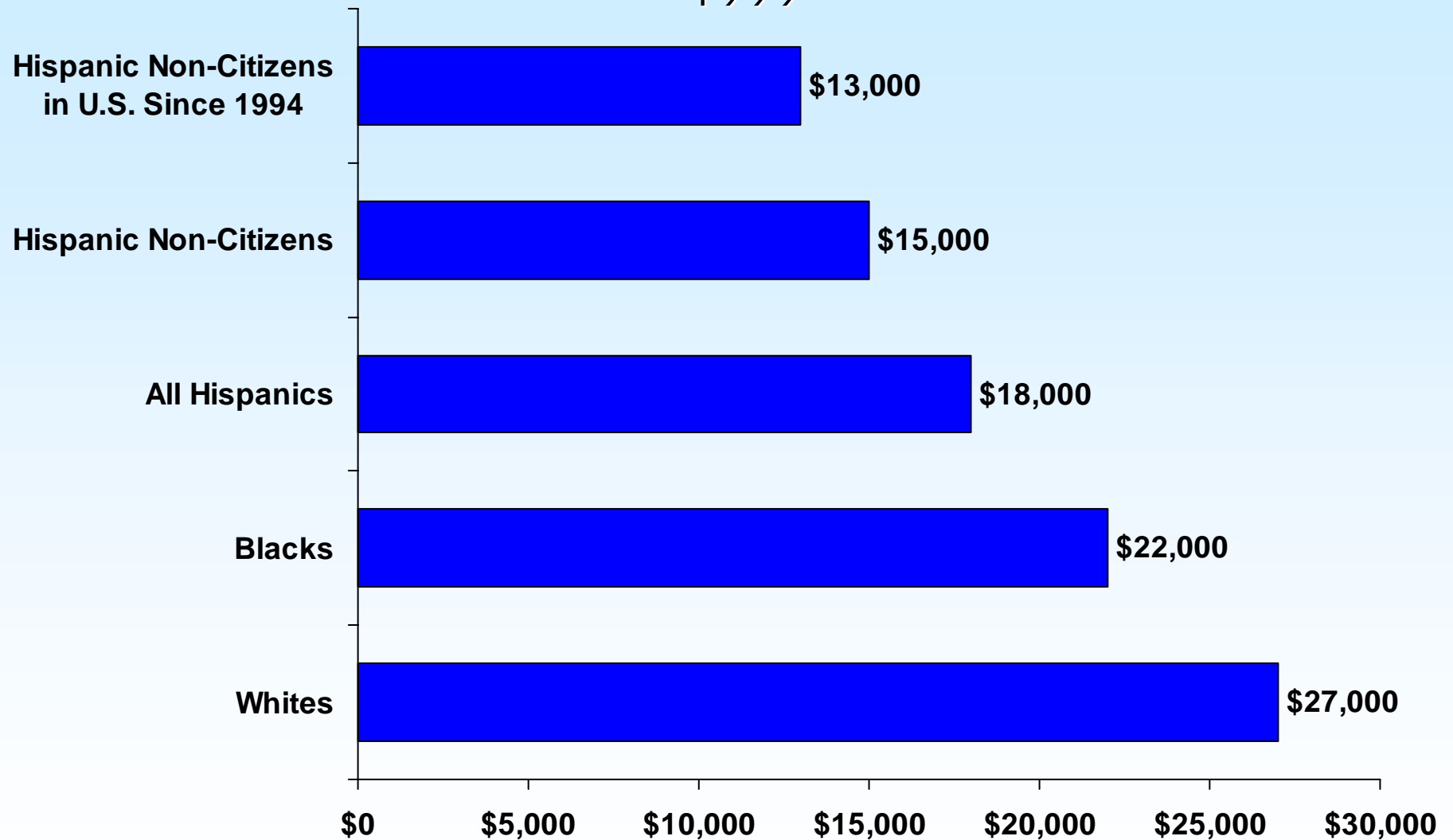


NOTE: Nonelderly includes all individuals under age 65. FPL=Federal Poverty Level.

SOURCE: Urban Institute and Kaiser Commission on Medicaid and the Uninsured, analysis of March 2002 Current Population Survey

GRAPHIC: Boston Public Health Commission Research Office

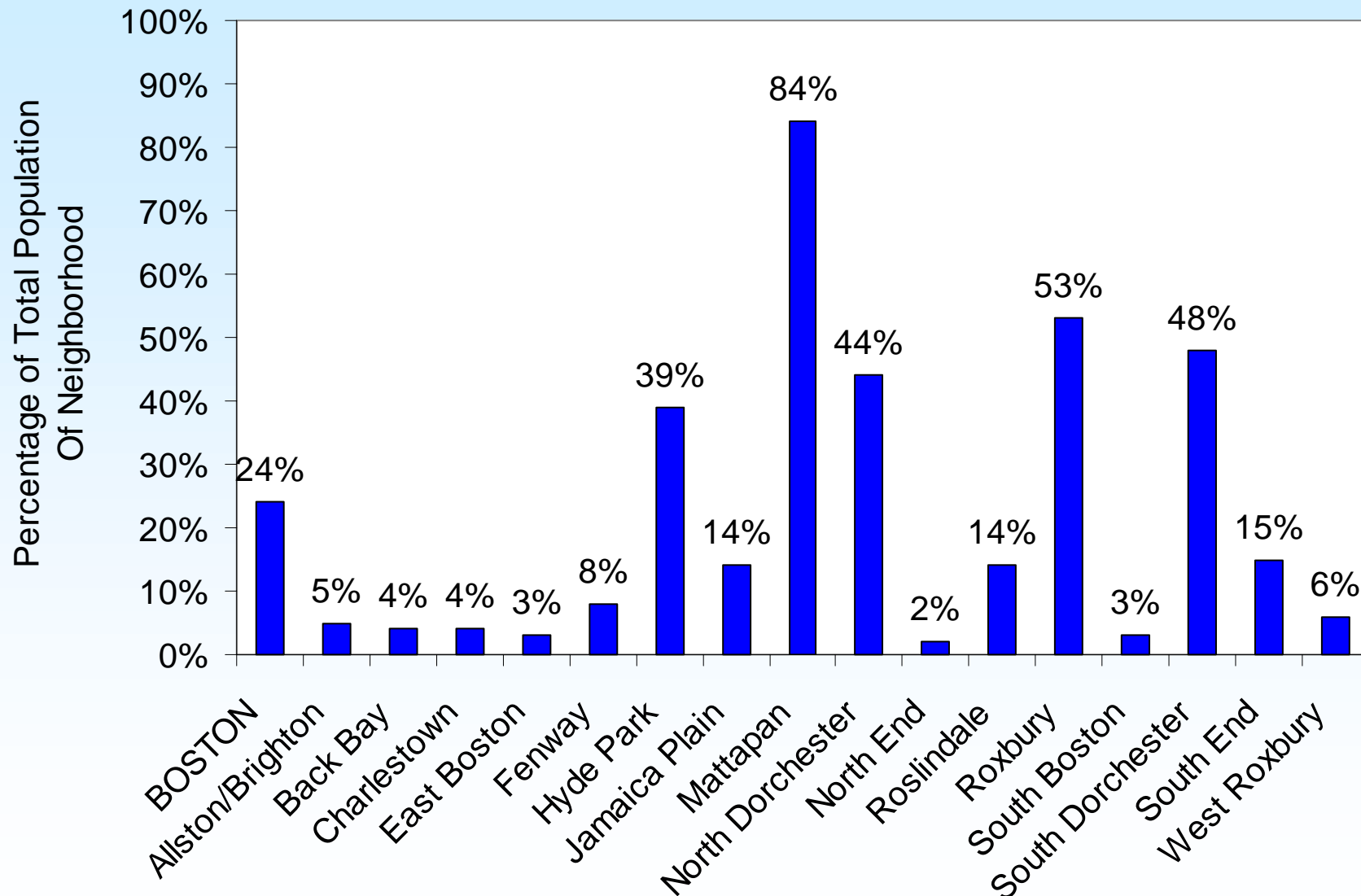
Median Annual Earnings, Full-Time Workers, 1999



SOURCE: Project HOPE Center for Health Affairs, based on overlap of February and March Supplements to the 1999 Current Population Survey.

GRAPHIC: Boston Public Health Commission, Research and Technology Services.

Black Resident Population by Neighborhood Boston, 2000



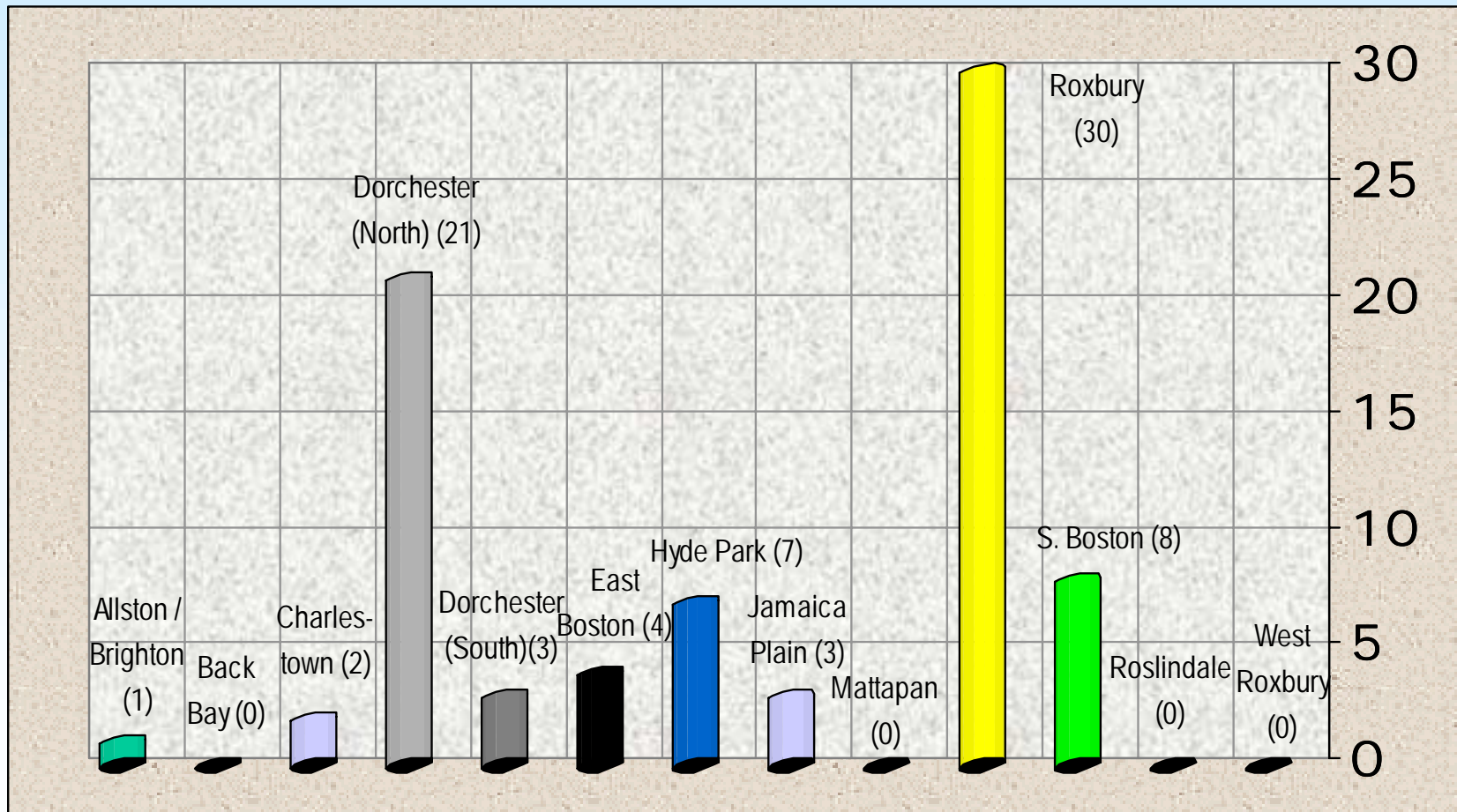
DATA SOURCE: US Department of Commerce, Bureau of the Census, American Fact Finder, Census 2000

DATA ANALYSIS: Boston Public Health Commission, Research Office

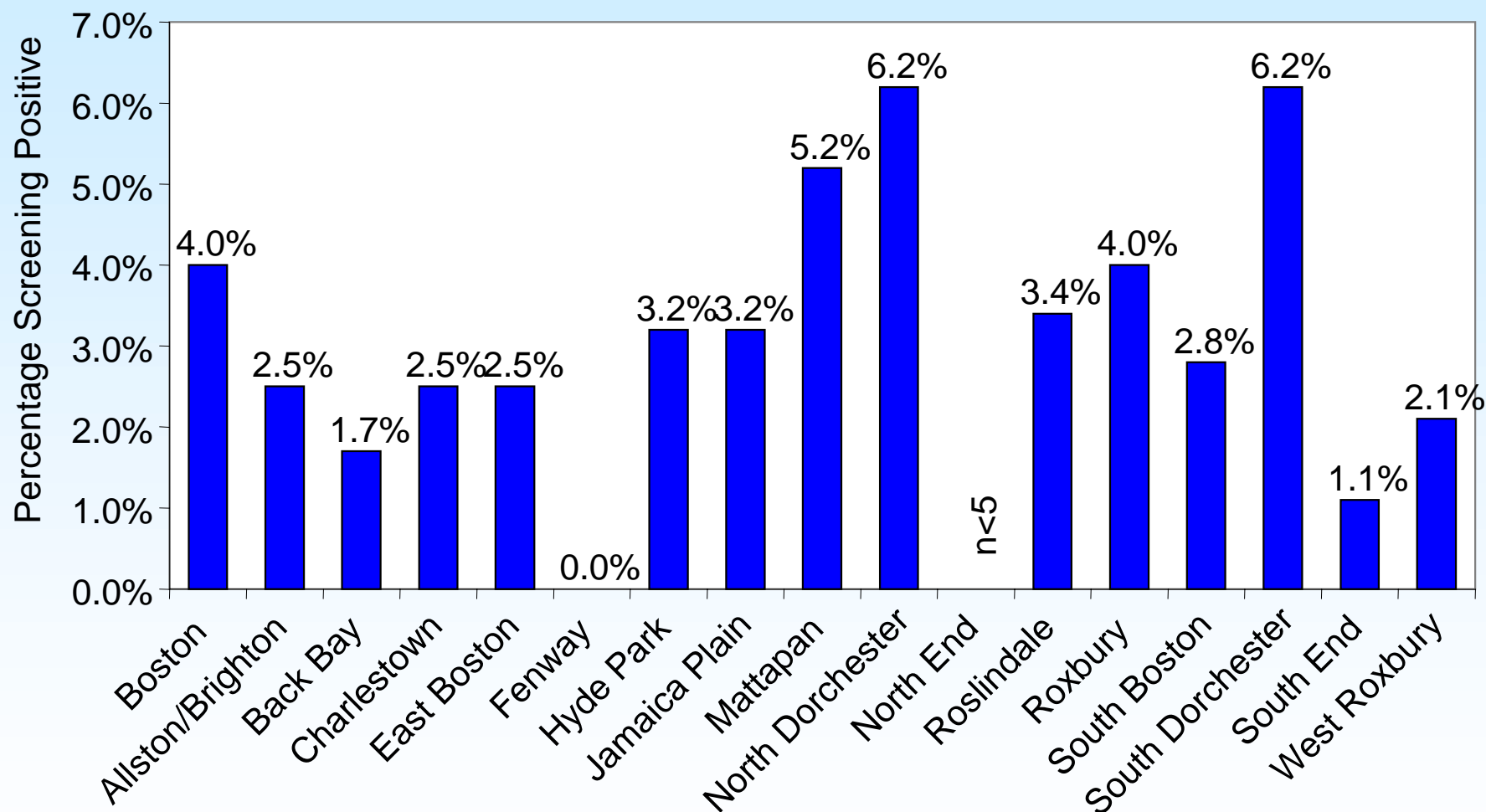
Environmental Exposures

- **Exposure to waste disposal sites**
- **Exposure to air pollutants**
- **Exposure to “unregulated” job sites (housecleaning, sweat shops, farms)**
- **Exposure to sub-standard housing (quality, density, location)**
- **Exposure to alcohol and tobacco products**

Number of Dumpster Storage Lots, Junkyards and Transfer Stations in Boston



Prevalence of Elevated Blood Lead Levels by Neighborhood, Boston, 2002

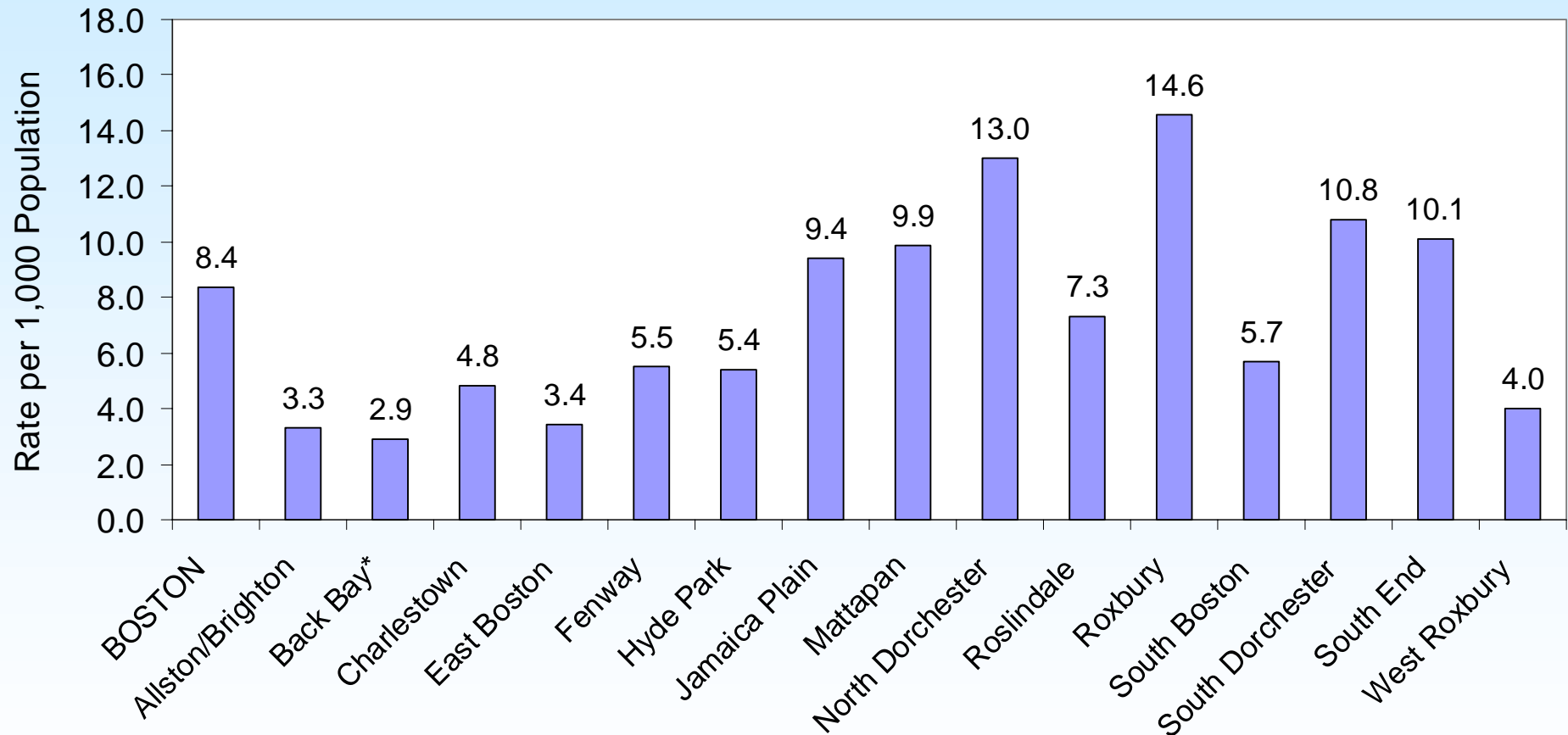


NOTE: Elevated blood lead was defined as 10ug/dL or higher

SOURCE: Lead Screening Data, Environmental Health, Boston Public Health Commission

ANALYSIS: Environmental Health, Boston Public Health Commission

Asthma Hospitalization Average Annual Rates Among Children Under Age 5 by Neighborhood* Boston, 1998-2002



*North End data have been incorporated with Back Bay.

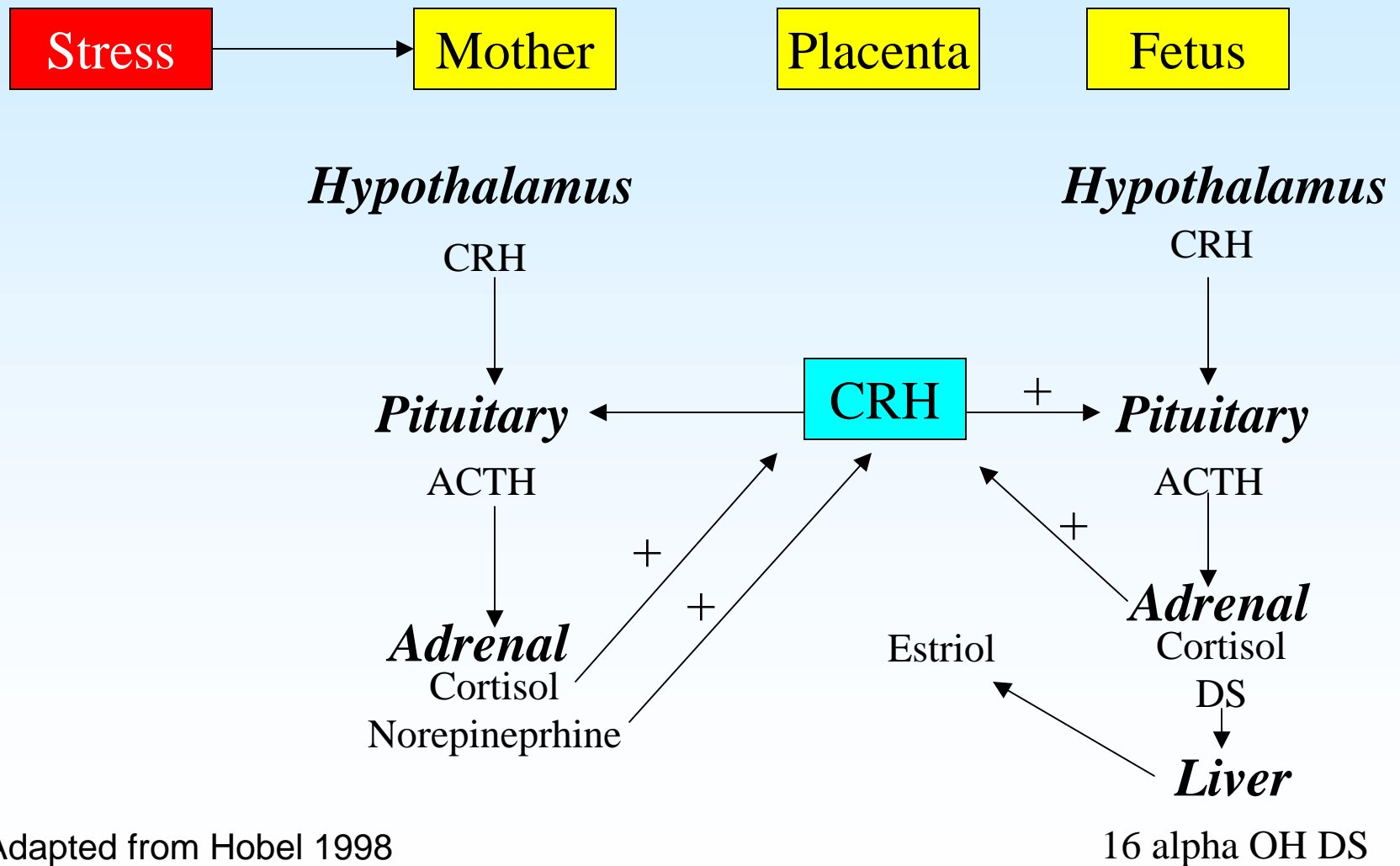
DATA SOURCE: 1998-2002 Acute Case Mix, Massachusetts Division of Health Care Finance and Policy. Rates are calculated using the US 2000 Census for resident population by zip code.

DATA ANALYSIS: Boston Public Health Commission, Research Office

Stress

- Understanding the biologic impacts of social stress (*Wadhwa et al. 2001., Culhane et al. 2001., Kramer et al. 2001*)
- Theory of allostatic load (*Michael Lu. 2002, Rich-Edwards. 2001*)
- “ *..a woman’s chronic exposure to racism creates an allostatic load ..altering the endocrine milieu in which the placenta is established....*” (*Rich-Edwards. 2001*)

Racial and Ethnic Disparities Stress & Preterm Birth



Health Behaviors

- **Individual behavior exists within a social context**
- **Internalized racism can affect health behavior**
- **Health behavior alone does not account for unequal burden of disease and death**

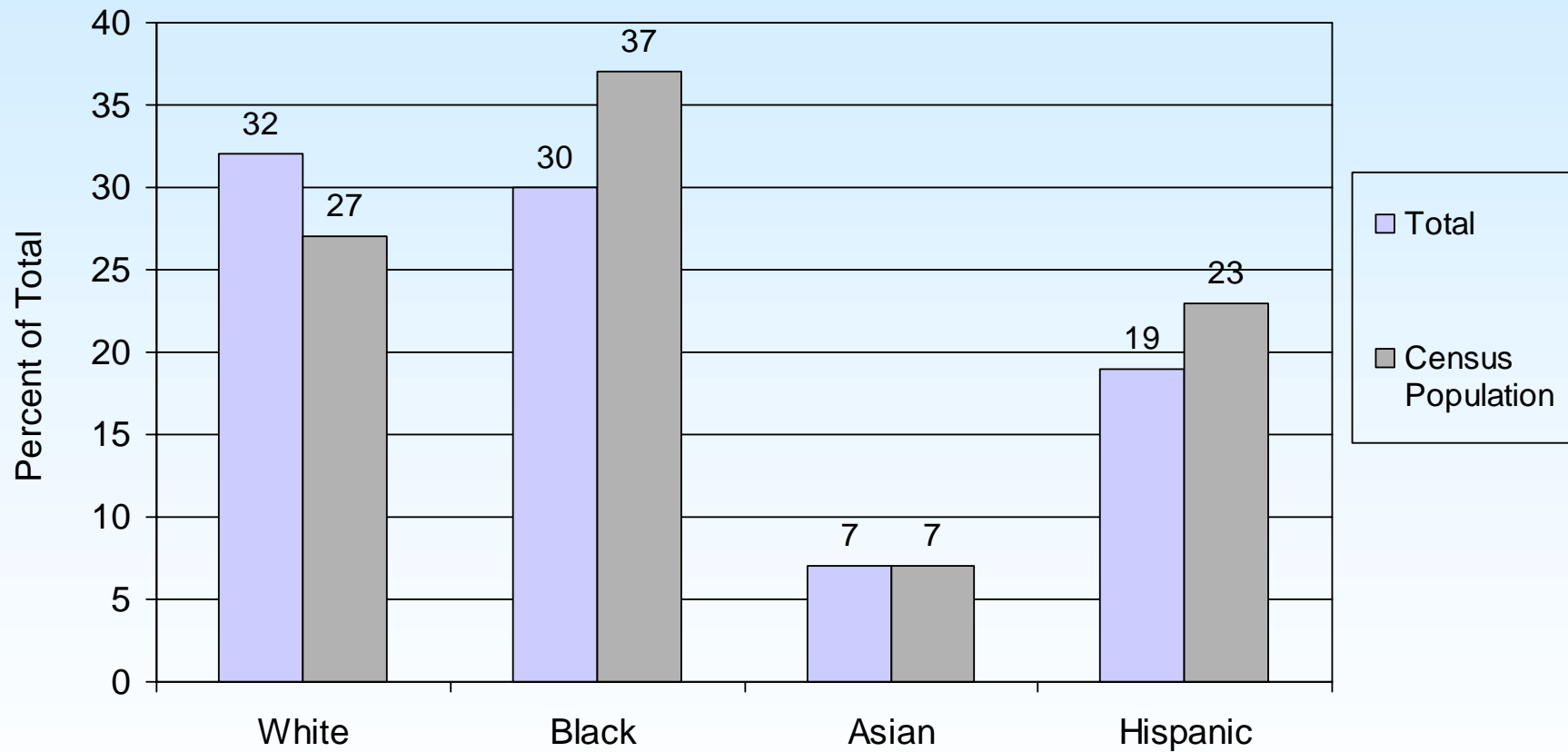
The Contextual Effect of the Local Food Environment on Residents' Diets

Study by Moreland et al. *AJPH*. 11/2002

Findings:

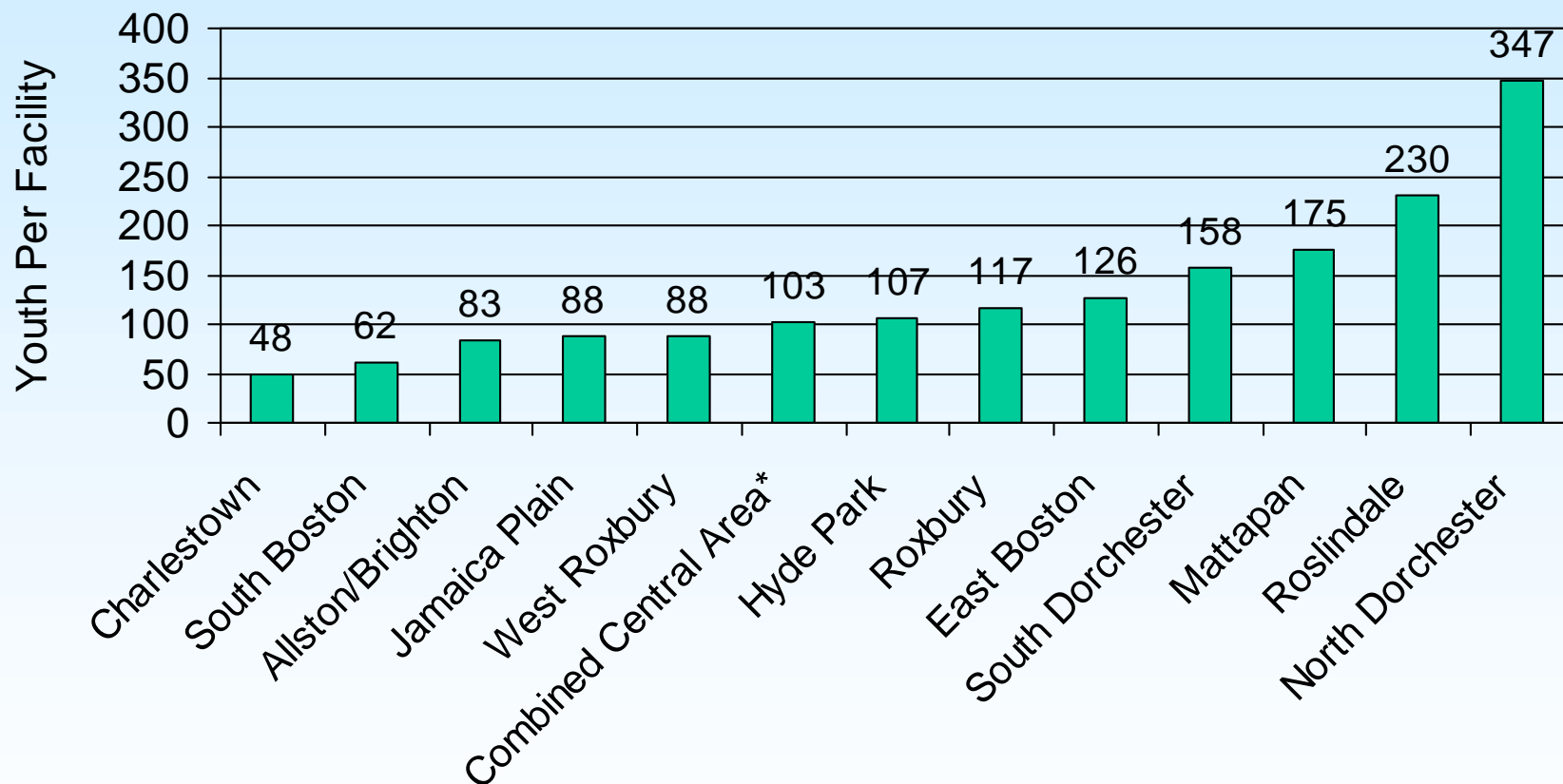
- **Only 8% of Black Americans lived in a census tract with at least one supermarket compared to 31% of White respondents**
- **Presence of supermarkets was associated with meeting dietary recommendations among Black Americans**

Participant versus Population Distribution of Estimated Participants by Race/Ethnic Group 1999-2000



DATA SOURCE:: Play Across Boston: Summary Report, December 2002

Number of Youth Per Facility Across Boston Neighborhoods 1999-2000



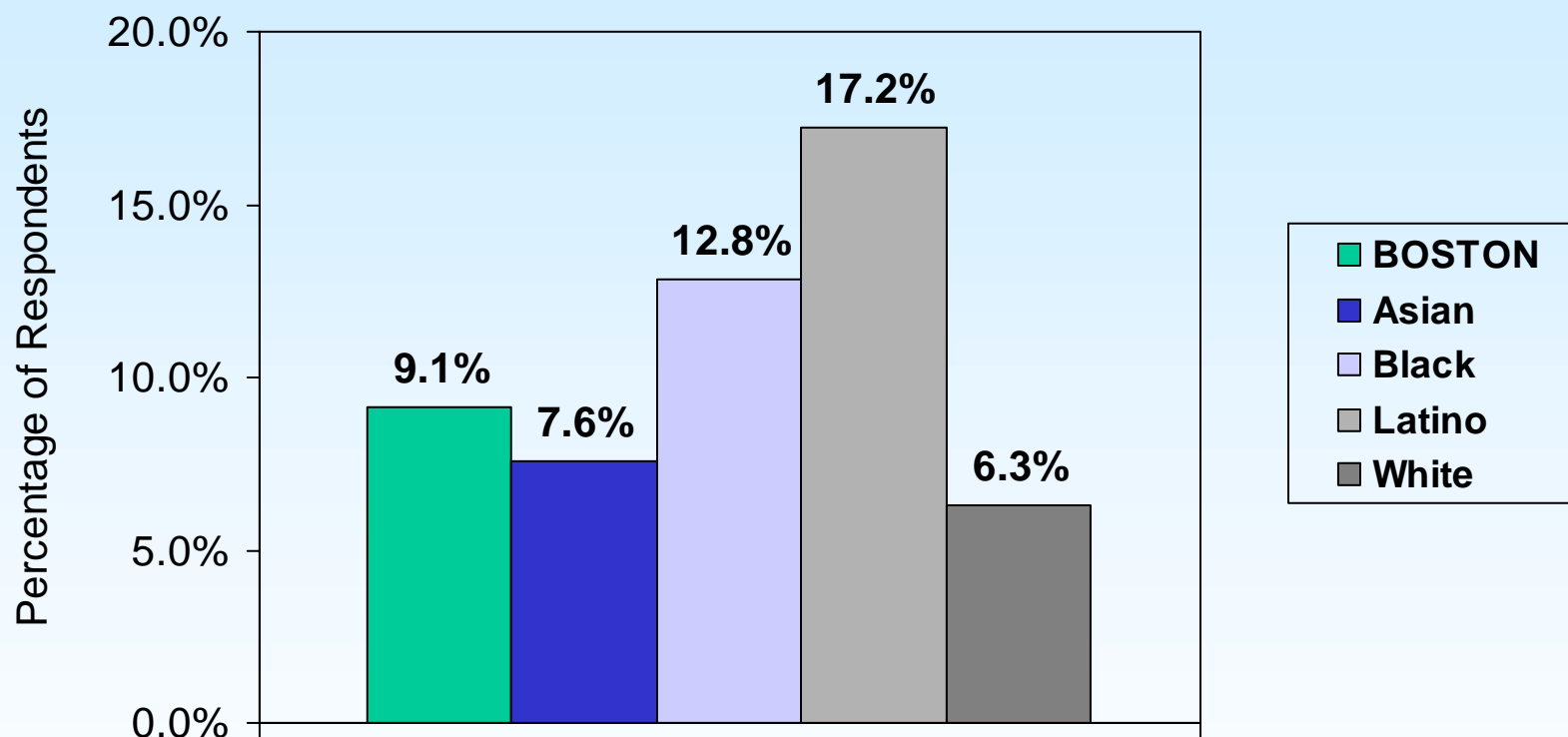
* Combined Central Area includes Beacon Hill/Back Bay, Central, Fenway/Kenmore, and South End.

DATA SOURCE: Play Across Boston: Summary Report, December 2002

The Provision of Health Care

- **Differences in access to and types of health insurance/health plans**
- **Differences in access to pharmaceutical drugs**
- **Differences in provision of diagnostic tests, therapeutic procedures, transplants, and preventive services**

Lack of Health Insurance Boston 2001*



*Includes data collected from January 2001 through May 2002.

DATA SOURCE: Behavioral Risk Factor Surveillance System, 2001, Massachusetts Department of Public Health and Boston Public Health Commission

DATA ANALYSIS: Boston Public Health Commission Research Office



UNEQUAL TREATMENT

CONFRONTING RACIAL
AND ETHNIC DISPARITIES
IN HEALTH CARE

INSTITUTE OF MEDICINE

Evidence of Racial and Ethnic Disparities in Healthcare

- Disparities consistently found across a wide range of disease areas and clinical services
- Disparities are found even when clinical factors, such as stage of disease presentation, co-morbidities, age, and severity of disease are taken into account
- Disparities are found across a range of clinical settings, including public and private hospitals, teaching and non-teaching hospitals, etc.
- Disparities in care are associated with higher mortality among minorities (e.g., Bach et al., 1999; Peterson et al., 1997; Bennett et al., 1995)

Black and White Differences in Specialty Procedure Utilization Among Medicare Beneficiaries Age 65 and Older, 1993

	Black	White	Black-to-White Ratio
Angioplasty (procedures per 1,000 beneficiaries per year)	2.5	5.4	0.46
Coronary Artery Bypass Graft Surgery (procedures per 1,000 beneficiaries per year)	1.9	4.8	0.40
Mammography (procedures per 100 women per year)	17.1	26.0	0.66
Hip Fracture Repair (procedures per 100 women per year)	2.9	7.0	0.42
Amputation of All or Part of Limb (procedures per 1,000 beneficiaries per year)	6.7	1.9	3.64
Bilateral Orchiectomy (procedures per 1,000 beneficiaries per year)	2.0	0.8	2.45

Source: Gornick et al., 1996

SUMMARY OF FINDINGS

Racial and ethnic disparities in health care exist and, because they are associated with worse outcomes in many cases, are unacceptable.

Racial and ethnic disparities in health care occur in the context of broader historic and contemporary social and economic inequality, and evidence of *persistent* racial and ethnic discrimination in many sectors of American life.

Many sources – including health systems, health care providers, patients, and utilization managers – contribute to racial and ethnic disparities in health care.

Vision

Improvement in the health status of non-dominant populations can be addressed by incorporating strategies in all our activities that focus on both political and economic issues of lack of equal opportunity, discrimination, and exposure to differential risks and on specific policies and practices within the health care system that perpetuate inequities.

What Does It Take.....

- **Addressing policies that perpetuate social and economic inequities**
- **Promoting a diverse workforce and leadership team**
- **Establishing institutional and personal cultural competence**
- **Targeting initiatives to eliminate the gap in health outcomes**
- **Measuring progress and establishing accountability**
- **Building and sustaining partnerships**